



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,042	03/22/2004	Lawrence J. Malone	022263-000410US	4076

20350 7590 08/11/2006

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER

JACKSON, BLANE J

ART UNIT	PAPER NUMBER
----------	--------------

2618

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/807,042	MALONE ET AL.	
	Examiner	Art Unit	
	Blane J. Jackson	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,7-17 and 20-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,7-10,12,13,16,17,20,22,23,25 is/are rejected.
- 7) ☒ Claim(s) 11,14,15,21,24 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed 20 March 2006 has been received and placed of record in the file.

Preliminary Amendment

The preliminary amendment filed on 22 July 2004 with the application papers has been received and placed on record in the file.

Response to Arguments

Applicant's arguments, see Remarks/Arguments, filed 20 March 2006, with respect to the substance of the provisional application identified with prior art Reddy has been fully considered and found persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Luneau.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

Art Unit: 2618

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 5, 7-10, 12, 13, 16, 17, 20, 22, 23 and 25 are rejected under 35

U.S.C. 102(e) as being anticipated by Luneau (US 2004/0203709).

As to claim 1, Luneau teaches a transceiver system and method for utilizing a plurality of different communication standards (figures 2 and 3), comprising:

A transceiver selectively configurable to a plurality of different communication standards (figures 2 and 8, paragraphs 0015, 0039-0048 and 0072-0078, a system that configures a protocol converter (32), first switching unit (29) and selects one of a plurality of wideband receiving units (22) and one of a plurality of wireless wideband transmitting units (21) based on a protocol selection signal provided by a user or a processing unit under system operation),

A memory configured to store information received by the transceiver utilizing a first communication standard and configured to provide the information to the transceiver for transmission according to a second communication standard (figures 2 and 3, paragraphs 0060-0065, the protocol converter (32) includes shared memory (72) for the temporary storage of the received data prior to protocol conversion).

Note: The transceiver system of Luneau as shown in figure 9 selects a single receiver unit and a single transmitter unit from a plurality of protocol specific receiver/transmitters per the protocol of the received and transmitted wireless signal

Art Unit: 2618

which may be of the same or different protocol standards, selectively operable during any given instant in time.

As to claim 3, Luneau teaches the system as recited in claim 1 wherein the single transceiver demodulates received signals into information bits (paragraphs 0089-0105, example of the processing of data bits demodulated from the reception of an AMPS signal).

As to claim 5, Luneau teaches the system as recited in claim 3 wherein the single transceiver re-modulates the information bits into signals utilizing the second communication standard (paragraph 0015, re-modulating and transmission of the data on a second protocol and paragraphs 0084-0088 and 0106-0117 a digital baseband system with bit processing for transmitting of an AMPS signal, valid to teach bit or digital data processing even though it is not a protocol different from the received AMPS signal).

As to claim 7, Luneau teaches the system as recited in claim 1 wherein the single transceiver utilizes the plurality of different communication standards by time multiplexing there between (paragraphs 0065-0066, extracted data is stored temporarily for subsequent modulation to the second protocol).

As to claim 8, Luneau teaches the system as recited in claim 1 wherein the single transceiver is coupled to an antenna sub-system capable of communicating utilizing the plurality of different communication standards (paragraph 0131, figure 10, a single antenna shared using a duplexer between the front end receivers and transmitters).

As to claim 9, Luneau teaches the system as recited in claim 1 wherein the baseband processor comprises a plurality of baseband sub-systems each capable of processing one of the plurality of communication standards (figures 8 and 9, paragraphs 0125 and 0136-0137 and figure 12, paragraphs 0142-0150, each of a plurality of DSP cards (202) is considered a baseband subsystem which include integrated baseband receive and transmit circuits, FPGA RX (222) and FPGA TX (223)).

As to claim 10, Luneau teaches the system as recited in claim 9 wherein the baseband sub-systems are implemented utilizing a plurality of discrete processors (figures 9 and 12, paragraphs 0142-0149, each DSP card (202) comprises four digital signal processors to signal process an identified channel).

As to claim 12, Luneau teaches the system as recited in claim 9 wherein at least on of a time and a duration of access to the single transceiver by the baseband sub-systems is tracked (figure 9, paragraph 0126, a monitor and control CPCI Host Bus (207) couples the wireless boards (200), DSP cards (202) and under the digital time based control of the Single Board Computer (SBC) card (206)).

As to claim 13, Luneau teaches the system as recited in claim 12 wherein each of the baseband sub-systems access the single transceiver during assigned time intervals (figure 9, paragraph 0126, a monitor and control CPCI Host Bus (207) couples the wireless (RF/IF) boards (200), DSP (baseband) cards (202) and the Single Board Computer (SBC) card (206) to provide bus access timing).

As to claim 16, Luneau teaches the system as recited in claim 9 wherein the baseband sub-systems at least one of translate, code, and decode information bits so as to make the information bits compatible with the plurality of different communication standards (figure 12, paragraphs 0147-0150, the DSP card (202) performs a source coding of a destination and bridging functions if a protocol conversion is required).

As to claim 17, Luneau teaches a method for utilizing a single transceiver comprising:

Receiving a signals utilizing a first standard (figures 4 and 9, paragraphs 0073 and 0083, an input data protocol is selected among a plurality of protocols),

Demodulating the signals into information bits (figure 12, paragraphs 0142-0148, DSP card (202) receives and demodulates data originating from a wireless board (200) and paragraphs and 0089-0105, the reception of an AMPS signal with bit processing),

Re-modulating the information bits into signals utilizing a second standard (paragraphs 0075, 0084-0088 and paragraphs 0106-0117 explains bit processing for

transmitting of an AMPS signal, valid to teach bit processing even though it is not a protocol different from the received AMPS signal) and

Transmitting the signals utilizing the second standard (figure 2, paragraphs 0015 and 0074, wireless transmitter selected from a plurality of different protocol transmitting units (21)),

Wherein the receiving and the transmitting are carried out utilizing a single transceiver (figure 2, as opposed to the architecture of figure 1, the system selects a single operating receiver and a single transmitter unit coupled to the protocol converter (32) at a given instant in time).

As to claim 20, Luneau teaches a system comprising:

A single transceiver configured to time division multiplex between a plurality of communication standards (figures 2, 8, 9 and 12 paragraphs 0015, 0072-0078, a system that configures for a single one of a plurality of receiver units (22), a single one of a plurality of transmitting units (21) and individual baseband digital processors on DSP cards (202) where a difference in protocol between transmitting and receiving is provided primarily by a protocol converter (32) during a given instant in time),

A memory (figures 2 and 3, paragraphs 0060-0065, the protocol converter (32) includes shared memory (72) for the temporary storage of the received data).

A baseband processor coupled to the single transceiver and configured to process a signal received by the single transceiver during a first time period according to a first communication standard and store received information in the memory and

Art Unit: 2618

further configured to process the received information according to a second communication standard for transmission by the single transceiver during a second time period distinct from the first time period (figure 9, paragraphs 0124-0126, and figure 12, paragraphs 0142-0150, the DSP (304) of a DSP card (202) is the digital baseband processing portion are coupled to the selected wireless transmit and receive circuits on the Tx/Rx board (200) via a monitor and control Host Bus (207) under control and clocked by a Single Board Computer (SBC) card (206)).

As to claim 22, Luneau teaches the system of claim 20 wherein the baseband processor comprises a multiple standard baseband processor (figures 9 and 12, paragraphs 0142-0149, DSP (304) performs source decoding etc. and used to perform a source coding of a destination and bridging functions if a protocol conversion is required).

As to claim 23, Luneau teaches the system of claim 20 wherein the baseband processor comprises a first baseband processor configured to operate in accordance with the first communication standard and a second baseband processor configured to operate in accordance with the second communication standard (figure 12, paragraphs 0142-0150, each DSP card (202) comprises four sections and a DSP (304) to each process a different carrier frequencies/protocol).

As to claim 25, Luneau teaches the system of claim 20 wherein the first communication standard comprises a wireless telephone communication standard and the second communication standard comprises a communication standard selected from a list comprising a wireless LAN communication standard, a Bluetooth communication standard and a HomeRF communication standard (paragraphs 0015 and 0082-0084).

Allowable Subject Matter

Claims 11, 14, 15, 21, 24 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. As to claim 21, Luneau teaches a single transceiver that configures one of a plurality of transmit/receive chains for single operation at any given instant in time but does not teach the single transceiver (the same and single transceiver transmit/receive pair) is configured for operation according to the first communication standard prior to the first time period and configured for operation according to the second communication standard prior to the second time period.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blane J. Jackson whose telephone number is (571) 272-7890. The examiner can normally be reached on Monday through Friday, 8:00 AM-5:00 PM.

Art Unit: 2618

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BJJ

A handwritten signature in black ink, appearing to read "Edward Urban", written in a cursive style.